



PROXIMITY CARD READER CZ-WGD



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The CZ-WGD proximity card reader is a device used in access control systems which is designed for reading the code of proximity cards. It sends data read out from the proximity card in the **WIEGAND 26** format. The reader can work together with any equipment receiving data in the same format.

READER DESCRIPTION

The head is fitted with a LED control flashing in two colors: red and green, and with a built-in buzzer - which serves for signaling purposes. In fact, the diode emits three colors of light, as the simultaneous flashing in red and green produces a yellow-orange color. The electronic parts of the head are covered with epoxy resin, which acts as moisture repellent. Connection between the head and the control device is provided by means of a multi-core cable led out from the head housing. The functions of leads as well as the control method are described in the section „HEAD CONNECTION”.

USING THE CARD READER

In order to use the reader bring the card for about half a second to within a distance of 14 cm from the reading head. The head will recognize presence of a proximity card within the electromagnetic field generated by itself and will make an attempt to read out the coded number of the card. If the coding scheme is recognized by the head, the card number will be read out and sent to the control device.

Correct readout of the code is confirmed by the head with a short sound signal and a blink of the LED. The way of further operation of the head (signaling) depends on the software of the system, in which the head is functioning.

Readout of the next card code may follow as soon as the previous card is withdrawn from the reader. If the card is not removed from the reading zone, the head - after one-time sending its code to the control device - will wait until the card is withdrawn from the reading zone. For the same card code to be able to be sent again, the card must be removed from the head (beyond the reading zone) for about 2 seconds.

CARD TYPE

The reader can work together with the EMCARD type cards, available from the manufacturer of the head, which are designated in the SATEL quotation with the symbol KT-STD-1.

INSTALLATION

The proximity card reading head of the CZ-WGD type is designed to be mounted directly on the wall. If there are a few heads in the system, the distance between them should be at least **50cm**.

NOTE: Do not mount the CZ-WGD reading head on a metal surface.

READER CONNECTION

The reader hookup is to be made with a typical cable (e.g. DY 8x0,5) according to the table below. The length of the cable connecting the head with the control device is not to exceed 30 meters.

CZ-WGD type head cable designation	CZ-WGD head cable color	Function	HID standard head cable color
+12V	red	head power supply	red
COM	blue	ground	black
OUT0	yellow	data 0	green
OUT1	gray	data 1	white
LED-G	pink	LED green color control	orange
LED-R	green	LED red color control	brown
BEEP	brown	buzzer control	yellow
HOLD	white	head operation blocking	blue

CONTROL DESCRIPTION

+12V - supply voltage input; permissible voltage range: 10,5...14V DC

COM - ground

OUT0 - data signal output; data format WIEGAND 26; voltage levels: 0V, 5V

OUT1

LED-G - input controlling the **green color** LED; input energized with +5V voltage causes the LED to come on; input 0V - the LED is off

LED-R - input controlling the **red color** LED; input energized with +5V voltage causes the LED to come on; input 0V - the LED is off

BEEP - input controlling operation of the buzzer; input energized with +5V voltage generates a sound signal; 0V - no sound signal.

HOLD - input disabling the head operation (card code readout), used optionally if the reading heads work at a close distance from each other (to eliminate mutual interference); +5V voltage supply to the input will block generating by the antenna of electromagnetic field used for the card code readout

When the control inputs for signaling and head operation are inactive or not used, they should be shorted to ground.

TECHNICAL DATA

Supply voltage	DC 10.5...14V
Maximum current consumption.....	50mA
Head dimensions	120x80x16 mm
Head operating temperature range.....	-20...+55 °C
Head operating humidity range.....	0...95%
Head operating frequency.....	125kHz
Data transmission standard	WIEGAND 26